Applicant : Jonathan Yen et al.
Serial No. : 09/728, 297
Filed : December 1, 2000
Page : 7 of 15

Attorney's Docket No.: 10004274-1
Amendment dated July 13, 2004
Reply to Office action dated April 22, 2004

Remarks

I.   Status of claims

Claims 1-9, 12, 13 and 15-25 were pending.

Claims 12, 13, and 22 have been canceled.

Claims 26-28 have been added.

The Examiner has allowed claims 1-8. Claim 21 depends from claim 8 and therefore also should be allowed.

The Examiner has indicated that claims 23, 24, and 25 would be allowed if rewritten in independent form. Claim 23 has been rewritten in independent form and therefore now should be allowed.

II.   Claim rejections under 35 U.S.C. § 103(a)

A.   Claim 9

The Examiner has rejected claim 9 under 35 U.S.C. § 103(a) over Rhoads (U.S. 6,430,302). For the Examiner's convenience, claim 9 is reproduced below:

> A machine-implemented method of extracting payment
> information from a payment indicium, comprising:
>
> extracting a digital token from a payment indicium based upon
> a comparison of the payment indicium and a base image;
>
> decoding the extracted digital token to produce a decoded
> message; and
>
> extracting from the decoded message payment information
> encoded in the payment indicium.

In his rejection of claim 9, the Examiner has asserted that "Rhoads clearly discloses a method of extracting payment information from a payment indicium." The Examiner has pointed generally to the Abstract, Summary, and Decoding sections of Rhoads disclosure in support of his assertion that Rhoads teaches the second and third steps of claim 9. Contrary to the Examiner's assertion, however, there is nothing in Rhoads disclosure that relates even remotely to a method of extracting payment information from a payment indicium, much less

Applicant : Jonathan Yen et al.
Serial No. : 09/728, 297
Filed : December 1, 2000
Page : 8 of 15

Attorney's Docket No.: 10004274-1
Amendment dated July 13, 2004
Reply to Office action dated April 22, 2004

to decoding a digital token extracted from a payment indicium and extracting payment information from the decoded digital token.

Rhoads describes a scheme for embedding ownership identification codes in composite image and video input signals. Rhoads does not even hint that the resulting encoded signals could constitute payment indicia. (Indeed, one would be hard pressed to image a more cumbersome and inefficient form of payment indicium than an encoded video signal.) Nowhere in the voluminous disclosure cited by the Examiner in support of his assertions does Rhoads teach or suggest anything about decoding a digital token that has been extracted from a payment indicium, as recited in second step of claim 9. In addition, there is nothing in the disclosure cited by the Examiner that would have led one of ordinary skill in the art at the time of the invention to extract from the decoded message payment information encoded in the payment indicium, as recited in the third step of claim 9.

The Examiner has acknowledged that:

> What is not explicit in Rhoads is the method of extraction of
> indicium from a graphical representation, extracting a digital
> token from a payment indicium based upon a comparison of the
> payment indicium and a base image.

The Examiner cannot reasonably be surprised that Rhoads does not explicitly or impliedly teach or suggest the step in claim 9 of "extracting a digital token from a payment indicium based upon a comparison of the payment indicium and a base image," because Rhoads does not teach or suggest anything whatsoever about extracting payment information from a payment indicium. Indeed, as explained above, one of ordinary skill in the art at the time of the invention would not have considered a video signal encoded in accordance with Rhoads' method to be a payment indicium.

Notwithstanding the failings of Rhoads' disclosure, the Examiner has concluded that:

> Rhoads clearly teaches the encoding and extraction of data
> within a graphical representation. It is clearly thought that one
> can use an original signal to compare with the embedded signal
> to detect the encoded information to detect the differences
> between the original graphics and the manipulated graphics and
> to extract the difference as to detect the information hidden in
> the graphical representation. Therefore, it would have been
> obvious to one having ordinary skill in the art at the time the
> current invention was made to modify the teachings of Rhoads
> and extend it to the other methods of graphical manipulation
> such as halftone image processing to achieve a superior method

Applicant : Jonathan Yen et al.   Attorney's Docket No.: 10004274-1
Serial No. : 09/728, 297   Amendment dated July 13, 2004
Filed   : December 1, 2000   Reply to Office action dated April 22, 2004
Page   : 9 of 15

> of obfuscating certain data within a graphical representation of
> a secure indicium. ...

With this rejection, however, the Examiner has failed to provide the requisite factual basis

and failed to establish the requisite motivation to support his deemed conclusion that the

features recited in claim 9 would have been obvious to one of ordinary skill in the art at the

time of the invention. The Examiner merely asserts without any basis that the features recited

in claim 9 are obvious based on the Examiner's unsubstantiated assertion that "it is clearly

thought that one can use an original signal to compare with the embedded signal to detect the

encoded information." This assertion, however, is unsubstantiated by any cited art. That is,

the Examiner has failed to point to any disclosure in Rhoads that would have suggested or

motivated one of ordinary skill in the art at the time of the invention to modify Rhoads' in the

way the Examiner has proposed. Instead, the Examiner has simply fabricated the requisite

motivation from his own imagination.

In addition, the Examiner has failed to provide a reasonable explanation as to why and

how one having ordinary skill in the art at the time the current invention was made would

have been motivated to modify the teachings of Rhoads and extend it to the other methods of

graphical manipulation such as halftone image processing. Contrary to the Examiner's

assertions, there does not appear to be a readily apparent way to extend Rhoads' sample-

based, deterministic signal decoding technique and Rhoads' holographic, statistical signal

decoding technique described to "other methods of graphical manipulation such as halftone

image processing."

For these reasons, the Examiner has failed to establish a proper prima facie case of

obviousness and the rejection of claim 9 over Rhoads should be withdrawn.

The examiner is reminded that:

> To establish a *prima facie* case of obviousness, three basic
> criteria must be met. First, there must be some suggestion or
> motivation, either in the references themselves or in the
> knowledge generally available to one of ordinary skill in the
> art, to modify the references or to combine reference teachings.
> Second, there must be a reasonable expectation of success.
> Finally, the prior art reference (or references when combined)
> must teach or suggest all the claim limitations. The teaching or
> suggestion to make the claimed combination and the reasonable
> expectation of success must both be found in the prior art, and
> not on applicants' disclosure.

Applicant : Jonathan Yen et al.
Serial No. : 09/728, 297
Filed : December 1, 2000
Page : 10 of 15

Attorney's Docket No.: 10004274-1
Amendment dated July 13, 2004
Reply to Office action dated April 22, 2004

MPEP § 706.02(j). Furthermore, as pointed out by the Patent Office Board of Appeals and Interferences:

> The examiner should be aware that "deeming" does not
> discharge him from the burden of providing the requisite
> factual basis and establishing the requisite motivation to
> support a conclusion of obviousness.

Ex parte Stern, 13 USPQ2d 1379 (BPAI 1989).

The Examiner is requested to cite art in support of his assertions, in accordance with MPEP § 706.02(j). Alternatively, if the Examiner is aware of facts within his personal knowledge that provide the requisite factual basis and establishes the requisite motivation to support his deemed conclusion that the features recited in claim 9 would have been obvious, the Examiner is requested to provide an affidavit in accordance with 37 CFR § 1.104(d)(2). In addition, the Examiner is requested to provide a reasonable explanation of the motivation that one of ordinary skill in the art at the time of the invention would have for modifying Rhoads method of embedding auxiliary data in an input video signal. Otherwise, the Examiner's rejection of claim 9 under 35 U.S.C. § 103(a) over Rhoads should be withdrawn.

The Examiner has indicated that:

> ... In addition, it is well known within the art to use
> comparison of original image with an image, which has been
> embedded with data or any other information, to extract the
> encoded or hidden information from within the manipulated
> image such as an image embedded with a digital token by way
> of halftone watermarking.

It is unreasonable for Applicants to be expected to respond to a rejection that fails to establish a proper *prima facie* case of obviousness. Such is the case with the Examiner's rejection of claim 9, in which the Examiner has made a number of assertions that are not based on anything found in Rhoads' disclosure. Without documentational support, the Examiner's assertions amount to no more than conclusions derived from surmise or guesswork by the Examiner. For these reasons, the Examiner is requested to cite art in support of his assertions. Alternatively, if the Examiner is aware of facts within his personal knowledge that provide the requisite factual basis and establishes the requisite motivation to support his deemed conclusion that the features recited in claim 9 would have been obvious, the Examiner is requested to provide an affidavit in accordance with 37 CFR § 1.104(d)(2).

Applicant : Jonathan Yen et al.
Serial No. : 09/728, 297
Filed : December 1, 2000
Page : 11 of 15

Attorney's Docket No.: 10004274-1
Amendment dated July 13, 2004
Reply to Office action dated April 22, 2004

Otherwise, the Examiner's rejection of claim 9 under 35 U.S.C. § 103(a) over Rhoads should be withdrawn.

For the reasons explained above, the Examiner's rejection of claim 9 under 35 U.S.C. § 103(a) over Rhoads should be withdrawn.

B.   Claims 12 and 13

The Examiner has rejected claims 12 and 13 under 35 U.S.C. § 103(a) over Doeberl (U.S. 5,075,862) in view of Ryan (U.S. 5,871,288). Claims 12 and 13 have been canceled, rendering the rejection moot.

C.   Claims 15-20

The Examiner has rejected claims 15-20 under 35 U.SC. § 103(a) over Cordery (U.S. 6,175,827) in view of Klemba (U.S. 5,710,814).

Claim 15 requires the step of "selecting at least one encoding level based on a payment value specified in the payment information." The Examiner has cited the following sections of Cordery to support his assertions:

Abstract:

The Abstract indicates that an error correction code is used to verify the validity of evidencing information for a document. The Abstract, however, does not teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Figures 2-7 and associated text:

FIG. 2 shows an error correction code 212 printed on a mail piece. FIGS. 3-5 show error correction codes printed in respective 2D bar codes on respective mail pieces. FIG. 6 shows a flow chart of a mail piece generation process in which a digital token is computed with an error correction code as an input. FIG. 7 shows a process of verifying a mail piece based on an error correction code. FIGS. 2-7, and the accompanying text, however, do not teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Col. 5, lines 60-68:

Applicant : Jonathan Yen et al.
Serial No. : 09/728, 297
Filed : December 1, 2000
Page : 12 of 15

Attorney's Docket No.: 10004274-1
Amendment dated July 13, 2004
Reply to Office action dated April 22, 2004

At col. 5, lines 60-68, Cordery merely indicates that an error correction code for information on a document is generated and that a digital token is generated using the error correction code. This disclosure, however, does not teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Col. 6, lines 1-40:

At col. 5, lines 1-40, Cordery teaches that an error corrected code that is printed on a document is used to verify the validity of evidencing information. This disclosure, however, does not teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Col. 7, lines 11-68:

At col. 7, lines 11-68, Cordery merely explains the general purpose of a digital indicium and that his system address the requirement of providing a linkage between the mail piece and the indicium. This disclosure, however, does not teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Col. 9, lines 40-51:

At col. 9, lines 40-51, Cordery explains that the process of producing digital tokens, digital signature or ciphertext by postage evidencing devices is well known. This disclosure, however, does not teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Col. 12, lines 1-60:

At col. 12, lines 1-60, Cordery describes a method of verifying the validity of evidencing information for a document. Nowhere in this section does Cordery teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Col. 14, lines 28-60:

At col. 14, lines 28-60, Cordery describes the elements of a mail piece 302 with a printed 2d bar code 324 that includes an error correction code associated with addressee information 306. This disclosure, however, does not teach or suggest "selecting at least one encoding level based on a payment value specified in the payment information," as recited in claim 15.

Applicant : Jonathan Yen et al.   Attorney's Docket No.: 10004274-1
Serial No. : 09/728, 297   Amendment dated July 13, 2004
Filed : December 1, 2000   Reply to Office action dated April 22, 2004
Page : 13 of 15

Thus, none of the sections of Cordery's disclosure cited by the Examiner supports his assertion that Cordery's teaches selecting at least one encoding level based on a payment value specified in the payment information.

The Examiner has indicated that (original emphasis):

> What Cordery is not clear on is an encoding private key bit length parameter varies with payment value. It is clear that as the <u>mail count and amount of the registers</u> change the token is changing as well that is a basis of creation of none-similar tokens in the postage meter system.

The "mail count and amount of the registers" in Cordery's approach, however, have nothing whatsoever to do with the *level* at which payment information is encoded into a corroborative digital token. In addition, the fact that each token generated by Cordery's approach is unique is irrelevant: all tokens are encoded with an encoding level that is independent of the specified payment value.

It is noted that, with respect to the error correction level used in his system, Cordery teaches that (col. 17, lines18-22):

> The level of error correction can be different for different parts of the document. A simple error-detection code can be used for some lines; some selected critical lines may, at the signer's discretion, employ a code that allows reconstruction of the selected lines...

That is, Cordery teaches that the error correction level can be different for *different parts of the document*, but this teaching would not have suggested to one of ordinary skill in the art at the time of the invention to select at least one encoding level based on a *payment value* specified in the payment information, as recited in claim 15.

The Examiner has additionally indicated that:

> It is clear that the higher the value of the asset particularly monetary assts the higher the bit length of the encryption. Klemba sets the stage for having variable encryption schemes and bit lengths for different assets of different value of the assets (Here the postage amount and indicium). As it is clear by Klemba's teaching (see Klemba column 2, lines 34-64 and column 7, lines 63-68 and column 8, lines 1-15). In addition it is clear that using the higher bit length requires a higher resource to encrypt and decrypt an asset. Therefore, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to use the variable bit

Applicant : Jonathan Yen et al.
Serial No. : 09/728, 297
Filed   : December 1, 2000
Page   : 14 of 15

Attorney's Docket No.: 10004274-1
Amendment dated July 13, 2004
Reply to Office action dated April 22, 2004

length encryption based on the value of the asset that is being
encrypted and save on usage of resources and create a higher
security for the indicium.

Klemba describes a scheme that allows a user to easily reconfigure a cryptographic
unit to comply with the different cryptographic policies of different national governments.
The section of Klemba cited by the Examiner merely teaches that his cryptographic scheme is
flexible enough to handle a governmental policy that requires performing multiple types of
cryptography at the same time. In this section, Klemba provides an example in which a
particular one of multiple different types of cryptography is selected for an application
depending on whether or not the application has a *Key Escrow requirement*; contrary to the
Examiner's implication, the selected type of cryptography does not depend on *asset value*.

Whether or not "Klemba *sets the stage* for having variable encryption schemes and bit
lengths for different assets of different value" is irrelevant to determining patentability under
35 U.S.C. § 103(a). MPEP § 706.02(j), which is quoted above, provides the proper standard
that the Examiner must meet into order to establish a proper *prima facie* case of obviousness
under § 103. The Examiner, however, has failed to meet this standard.

Moreover, the basis for the clarity of the Examiner's assertions regarding variable bit
length encoding is not found in the cited references. Rather, this clarity is entirely invented
by the Examiner without any support. The Examiner therefore has failed to provide the
requisite factual basis and failed to establish the requisite motivation to support his deemed
conclusion that the features recited in claim 15 would have been obvious to one of ordinary
skill in the art at the time of the invention. The Examiner is requested to cite art in support of
his assertions. Alternatively, if the Examiner is aware of facts within his personal knowledge
that provide the requisite factual basis and establishes the requisite motivation to support his
deemed conclusion that the features recited in claim 15 would have been obvious, the
Examiner is requested to provide an affidavit in accordance with 37 CFR § 1.104(d)(2).
Otherwise, the rejection should be withdrawn.

For at least these reasons, the Examiner's rejection of claim 15 under 35 U.S.C. §
103(a) over Cordery in view of Klemba should be withdrawn.

Claims 16-20 incorporate the features of independent claim 15 and therefore are
patentable over Cordery in view of Klemba for at least the same reasons explained above.

Applicant : Jonathan Yen et al.
Serial No. : 09/728, 297
Filed : December 1, 2000
Page : 15 of 15

Attorney's Docket No.: 10004274-1
Amendment dated July 13, 2004
Reply to Office action dated April 22, 2004

D. Claim 22

The Examiner has rejected claim 22 under 35 U.S.C. § 103(a) over Cordery in view of Curry (U.S. 5,706,099) in view of Ryan. Claim 22 has been canceled, rendering the rejection moot.

III. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

Date: July 13, 2004

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